

The Cary Arboretum



of The New York Botanical Garden

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The Return of the Bluebirds

by Florence Germond

Editor's note: As an active member of the Ralph T. Waterman Bird Club, Florence Germond has devoted countless hours monitoring bird boxes on the Arboretum grounds. As of this year, 27 boxes were used by many bluebirds at the Cary Arboretum.

When the New York Botanical Garden began the establishment of the Cary Arboretum in 1971, several members of the Ralph T. Waterman Bird Club — including myself — felt the 2,000-acre Arboretum grounds would be an ideal site to expand our number of monitored bluebird boxes.

Only nine years earlier, we members of the Bird Club began to organize a bluebird trail in Dutchess County. Bluebirds were a rare sight in the 1960's, and without much "know how" but with much concern, we began to construct and scatter nesting boxes throughout the middle of Dutchess County. That first year, we were exhilarated to discover that one pair of bluebirds used a box, and this pair brought off two broods! Gradually, we learned of the more receptive locations for boxes, and each year we gained a few more occupants.

The Eastern Bluebird (*Sialia sialis*) is certainly one of the most beautiful of our North American birds. During the first quarter of this century, the bluebird, which also happens to be the New York State bird, was a common species in the rural areas of the Northeast. However, during the 1930's and 1940's the bluebird began to disappear from most of its former habitat.

We now know this loss was caused primarily by lack of nesting sites. Wooden fence posts with rotting tops and knot holes were replaced by metal ones. Fields were enlarged by complete removal of fences and hedgerows. This, plus the increase in numbers of the two alien species — the common house sparrow and starling — both of which were introduced into the United States before 1900 and are extremely aggressive. The sparrow and starling also occupy the natural cavities and man-made boxes.

To re-attract this lovely bird to our area,

man-made boxes built to exact specifications were utilized. The holes of the boxes must be exactly one and one-half inches in diameter and located at least seven inches from the bottom. The boxes must have a top, side or front which can be easily opened. Many that can be purchased do not meet these qualifications.

With the valuable help of Bill Consiglio, an active Ralph T. Waterman Bird Club member, members of a local boy scout troop worked with us to build and put out boxes at the Cary Arboretum. It was a bitter cold early

entire Ralph T. Waterman trail is monitored by individuals throughout the breeding season after a "big day" of cleaning the houses in early March.

Predation is the most common cause of loss of bluebirds after nesting has commenced. Besides the alien pest birds mentioned earlier, wrens will often pierce the eggs before they hatch, sometimes taking over the box for themselves. Locating the house away from human habitation seems to prevent discovery by this species.



Florence Germond inspects a bluebird box on the Arboretum grounds.

March day when 10 boys and several fathers, accompanied by Bill and me, erected the 20 or so boxes for spring-arriving bluebirds — several of which soon became new homes for the visiting friends. These boxes are the only ones on our trail built by children. And if you should pass by you may note individuals' names on a box or a note of "welcome" to the occupant.

These boxes are now being monitored by Winnifred Hebb, the wife of Robert Hebb, Horticulturist at the Cary Arboretum. The

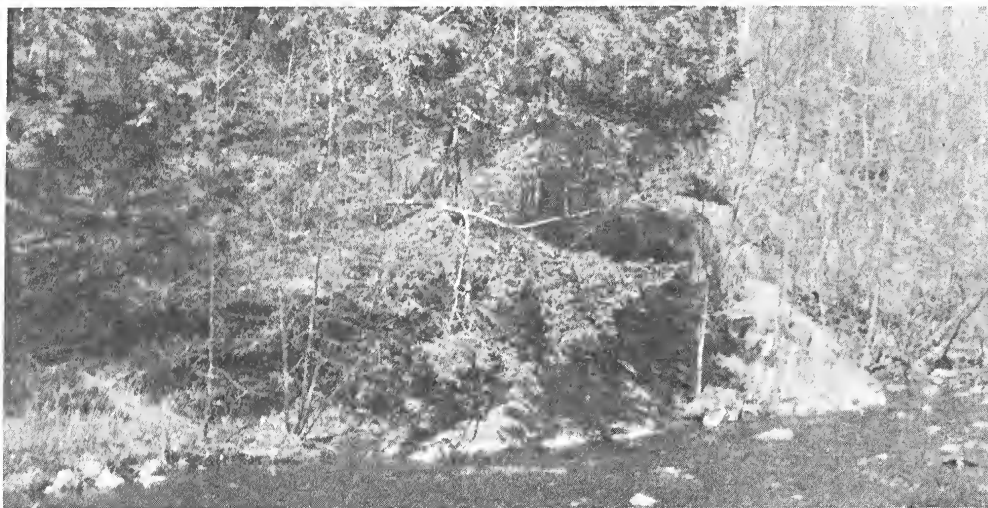
Another bird which has a liking for man-made boxes is the tree swallow. While they do prey upon the bluebird in a sense, they are delightful and useful birds. An extra box or two erected in an area keeps both species content.

Raccoons, cats, snakes, and human beings are also predators. Tragic stories of raccoons killing adult and young bluebirds come to me each year. Heavy scratches on sides of the

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New Hope for the Hemlock Forest

The Return of the Bluebirds
continued from page 1



Saving the hemlocks: research will pave the way.

As early as 1895, the New York Botanical Garden's 40-acre Hemlock Forest along the Bronx River was an ecological preserve and study site. Maintenance and restoration of the forest have been matters of concern to Garden staff, Garden members, and New York City officials ever since. Studied repeatedly over the years, recent research by Arboretum staff members has confirmed that concerns for the Garden's Hemlock Forest are, indeed, warranted.

One of the few remaining natural areas in New York City, the forest's deterioration is a result of pollution damage, damage from over-use, and other problems of the urban environment. A recent study, funded by the Eppley foundation and conducted by Wildlife Biologist Mr. Jay McAninch, and assisted by Cary Arboretum and Bronx staff, allowed analysis of the forest in detail. The one-year research project included several facets of study, with a goal of developing ecological management strategies that will restore and preserve the forest while making

it properly accessible for education and research.

Cary Arboretum research assistant Ms. Dee Anne Honkala concentrated her studies on vegetation analysis, soil analysis and a mammal population evaluation. Studies show that seedling establishment has been virtually impossible for thirty years, due to heavy visitor use and ground compaction of the forest floor. The study also indicated that the forest ecosystem has been seriously altered. Variation in soil pH, organic matter and soil compaction has contributed to the development of a very heterogeneous vegetation community.

The study has provided the basis for formulating management strategies for the forest. A Hemlock Forest Committee has been organized by Dr. James Hester, President of the New York Botanical Garden, to devise, implement and monitor future programs for the forest.

Garden Club Philosophy in Tune with Arboretum

The Garden Club of Orange and Dutchess Counties, one of the 13 founding clubs of the Garden Club of America, has recently extended its interest in educational and public displays by funding what will be a complete exhibit of rhododendrons hardy to the northeastern United States.

The garden club, under the direction of Mrs. T. Downs Mallory, President, is an educational organization which has several projects in Orange County. It chose the Cary Arboretum as the site for a project after careful study of several Dutchess County areas.

"We wanted to satisfy the need for a public display, and support one that will be unique to the area," said Mrs. Richard C. Strain, Horticulture Chairman for the club. "The rhododendron dell will be an educational project that will provide a learning experience to the public as well as to garden club members."

Other educational projects involving the garden club include the Jane Colden

Sanctuary in Vail's Gate, the Lewis Woodlands in Warwick, the Outdoor Classroom in Monroe, the 1810 Garden in Warwick, and the Hill-Hold Farm in Montgomery.

Support to the Arboretum, in the amount of \$10,000 over a period of five years, will fund the project. The dell, located between Route 44A and the Arboretum's Plant Science Building, will also include a collection of hardy azaleas from throughout the temperate world. "Eventually every conceivable species of rhododendron that can be grown in this area will be planted in the dell," reports Arboretum Horticulturist Mr. Robert Hebb.

"The Arboretum is extremely pleased to have this project supported by the Garden Club of Orange and Dutchess Counties," said Arboretum Director Dr. Willard Payne. "The rhododendron dell will be a major horticultural addition to this region, and complements the rhododendron valley collections being developed in the Bronx."

box are the incriminating evidence of this predator. Guards on the pipe supporting the house may prevent this. We are experimenting with lengths of plastic plumbing pipe around the mounting post this year.

Cats are the real enemy when the young birds are leaving the box — often flying to the ground or very low branches. On the Arboretum grounds, human predation is always a possibility since all the boxes are so available along roads and on lawns. However, we trust most visitors are interested only in seeing the bluebirds in the area and will not touch the houses.

A near tragedy yet a comic story is my "Snake Tail Tale." I approached a box one cold late April morning to hear both parents calling in great agitation from the stub of the tree in which the box was fastened. Upon opening the front I saw four open mouths, necks outstretched. But, protruding from one was about 3 inches of what I quickly realized was something alive — a tiny snake! The poor baby had swallowed all he could and it was apparent the adults were not entering the box to feed their family while this "thing" was present!

How had the snake gotten into this box? With no other thought than to get rid of it, I snatched the wiggling end and tossed it out of the box. (I'm not afraid of snakes but neither am I overly fond of them!) The baby sailed out of the box with the snake, landing on the nearby ground. Of course, the snake became dislodged in my action and disappeared. I never saw more than the rear half or two-thirds of what probably the parent bird had mistaken for a large worm. After replacing the unharmed baby the parents quieted down and returned to their duties.

In the northeastern United States, bluebirds normally rear two and sometimes even three broods. One of the pairs at the Cary Arboretum reared a family in a box near the Gifford House and were often seen feeding on the lawn. Before the young birds had left the box, a second box located about 400 feet away was discovered to have a nest under construction. It was quite evident that the same pair were readying a new nest in a new box for family number two! Indeed, the second clutch of eggs was laid while the fledglings were still being fed in the near area. This pair of parents were indeed busy and succeeded in bringing off both broods.

On one occasion, I observed the first brood of siblings carrying food to a nest of tiny brothers and sisters. This is not an uncommon happening according to Dr. Lawrence Zeleny, author of *The Bluebird*. It is interesting to note that this occurrence is not observed in other species of birds.

It is hoped that any readers will sometime visit the Cary Arboretum and be thrilled with the sweet song and flash of brilliant blue of our eastern bluebird. Largely due to the bluebird trails scattered over the countryside, the population is returning to more normal numbers.

Save Water

Rave Notices for Boston Tour

by Janice B. Claiborne, Membership Secretary

Florence Wade of Poughkeepsie purchased and then tenderly cradled a small jasmine plant on the bus all the way back to Millbrook . . .

Jessica Woodle, New York City, and I discussed one of our favorite plants, the "bleeding heart," and the lovely pure white specimen I had just seen, *Dicentra spectabilis* 'Alba' . . .

Thurston Greene, Millbrook, admired the growing patterns and shapes of the many leafless trees in all their great variety . . .

Mary Caccamo, Wappingers Falls, and Arthur Levin, Pleasant Valley, competed for the title of "most photos taken" . . .

Charlotte Bathrick, Red Hook, was intrigued with the false cypress, *Thuja occidentalis*, and the Japanese long-stalk holly, *Ilex pedunculosa*, and wondered where they might be obtained . . .

Betty and Bill Straub of Sharon were anxious to have for their own home a Franklinia tree, *Franklinia alatamaha*, originally from Georgia, but now extinct in the wild and preserved only in cultivation . . .

The consensus was that the Cary Arboretum's excursion March 14 and 15 to the Boston Flower Show and the Arnold Arboretum, led by Horticulturist Robert S. Hebb, was an enormous success. Both as a learning experience and as a delight to the senses, the trip met with the unqualified approval of all thirty-eight participants in the

congenial and interested group.

Bob Hebb's enthusiasm and excitement at the Arnold Arboretum were infectious. "If there were only one tree I could plant at my home . . ." The specimen being observed was *Acer griseum*, the paperbark maple from China, which from a distance seemed to be covered with reddish-orange sheets of silk. This appearance is the result of the colorful, exfoliating or peeling bark. "One of my absolute favorites," said Bob, "is the Korean *stewartia*, which also has beautiful peeling bark and the additional bonus of flowers in midsummer that resemble a single white camellia."

A childhood favorite of mine has been the Lombardy poplar, which, I had learned, does not enjoy a long life. Therefore, I was particularly delighted when Bob Hebb pointed out the upright European beech *Fagus sylvatica* 'Fastigiata', which resembles the poplar in landscape characteristics, but is much longer lived. In addition it has beautiful silvery bark. Everyone was fascinated by *Fagus sylvatica* 'Contorta', another European beech, with its maze of crazily contorted branches, forking in all directions and grafting to others in "mid-air."

Enjoying all the sights and the friendly group of Arboretum members, as well, were Arboretum Director Willard W. Payne and Mrs. Payne, serving informally as tour host and hostess. Upon return to the Cary Arboretum, the happy — and somewhat exhausted — group conjectured upon the possibility of a similar trip next spring. Hopes run high that we may be able to plan an excursion to the Philadelphia Flower Show and Longwood Gardens.

People at the Arboretum



David Smith, Laborer . . . A next door neighbor to the Arboretum, David had a front-seat view of the Arboretum's development from his parents' home on Fowler Road.

"I was in high school when progress first began on the grounds . . . I always had a feeling I would work here." David was hired the summer of 1974, and since then has been responsible for a variety of jobs

at the Arboretum's greenhouse complex on Route 82.

In his spare time, David enjoys spelunking, horseback riding, tennis and swimming. He takes pride in his small pine tree nursery — a collection of "extras" discarded at the greenhouse.

Up until now, David has taken vacations in "bits and pieces." But this summer he plans to take a week's cruise on a sailing schooner along the northeastern U.S. coast.

His interest in architecture frequently brings him to the Ogden Mill, Roosevelt and Vanderbilt estates. Inspired by architect Malcolm Wells who was responsible for designing the Arboretum's solar-heated Plant Science Building, David would like to build his own home some day. "Since I enjoy spelunking, I certainly don't mind the idea of an underground home," he says. "This house would be completely underground and virtually maintenance free," he added. Still in the beginning planning stages, David feels his home will eventually be built in Millbrook near the Arboretum.

Commenting on his job, he feels the Arboretum's greenhouse staff is "like a big family." "We work together and really enjoy the work we do," he says.

At the Garden

The beginning of May brought with it a new flower show at the New York Botanical Garden's Enid A. Haupt Conservatory in the Bronx.

A "Frenchy" early summer garden including hydrangeas, roses, geranium, petunias, astilbe and begonias is currently on display in the Conservatory. Many of the eleven houses which make up the Conservatory will display miniature orchids, African bulbs and succulent plants, *Calliandra* (red powderpuff tree) and peak cactus flowers.

Through September, an exhibition of sculpture for gardens and open landscapes will be staged in the Conservatory and its courtyard. Sponsored in conjunction with the Sculptor's Guild, Inc., the exhibition was conceived as a service to architects, owners of gardens, industrial business and parks, shopping malls and other potential buyers. All works are original and are for sale.

Beginning June ninth and continuing through Labor Day, the Garden's annual summer show will be on display in the Conservatory. Caladiums, large-scale colorful leaved tropical plants, impatiens, flowering kale, summer herbs and coleus are just some of the plants to be exhibited.

The New York Botanical Garden's Enid A. Haupt Conservatory is open from 10 a.m. to 4 p.m. Tuesdays through Sundays. "Friends of the Arboretum" are admitted free of charge.

Elias' Lectures, Travels, Focus on USSR

"The Distribution of Frees in the Soviet Union" was recently the subject of a seminar given to staff and students at the University of Colorado's Department of Biology by Arboretum Dendrologist Dr. Thomas Elias.

To encourage future research on vegetation of the Soviet Union, which closely resembles that of the Rocky Mountains, the discussion also included the need to develop techniques to analyze such vegetation on a large scale. Neither forest areas have ever been studied comparatively.

On May 14th, Dr. Elias, along with research assistant Ms. Lydia Newcombe, will begin his fourth exchange trip to the Soviet Union to collect plant specimens, books and botanical publications. Dr. Garret Crow of the University of New Hampshire will accompany the Arboretum team. During six weeks of extensive travel throughout the U.S.S.R., the group will concentrate on plant collecting in Crimea, which is located in the southwest Ukrainian Peninsula, and in the northern Caucasus Mountains.

The successful exchange program between the U.S.A. and the U.S.S.R. is conducted under a bilateral agreement in the field of environmental protection. The activities involving plants and animals are coordinated by the U.S. Department of Interior.

Around the Arboretum

J.S. Cartier Photographic Exhibit

"Seeing The City But For The Trees," a photographic exhibit by J.S. Cartier, is currently on display in the Arboretum's solar-heated Plant Science Building, Route 44A, Millbrook.

Best known for his photograph "Tree of Thorns" which is on permanent display in the Metropolitan Museum of Art, New York City, Mr. Cartier's exhibit at the Arboretum includes documentations of trees in an urban environment.

Among others, Mr. Cartier has exhibited his work in New York City at The Midtown Y Gallery, ICP Workshop, VSP International Exhibition, Cooper-Hewitt Museum and The Whitney Museum of American Art. His photographs have appeared in *PhotoReporter*, New York; *Le Nouveau PhotoCinema*, Paris; *Horizon Magazine*, New York; *L'Express*, Paris; and *Decade*, Boston. This summer, a portion of his portfolio will be published in *Petersen's Photographic Magazine*, Los Angeles.

The exhibit will be on display through June 21. Visiting hours are Monday through Friday, 8:30 a.m. to 4:30 p.m., and Sundays, 1:30 - 3:30 p.m.

Marie-Claude Holzberger is the guest curator for Mr. Cartier's exhibit.

Sketch Around

The Cary Arboretum's first annual "Sketch Around," scheduled for Saturday, June 27 from 9:30 a.m. to 4:00 p.m., will offer a day of art, exercise and environmental awareness.

Arboretum Education Coordinator and naturalist Dr. Peter Dykeman will join local artists Nicholas Lomangino, Arne Lindmark and Ruth Brunstetter for the day's activities. On the morning walk, landscape design, composition interpretation and subject matter will be discussed. Dr. Dykeman will add details on flora, fauna and nature as the

group sketches around the Arboretum grounds.

Participants are asked to bring lunch, some art tools and wear comfortable clothing. A raindate is scheduled for June 28. For more information or to register for "Sketch Around," please call Mrs. Marcia Davis at (914) 677-5358.

Orchid Books Reduced for Sale

Three books by orchid specialist Dr. Carlyle A. Luer have been greatly reduced for spring sale in the Arboretum's Gift Shop located in the Gifford House, Route 44A (Sharon Turnpike), Millbrook.

Published by the New York Botanical Garden, Dr. Luer's books on orchids have been treasured for their excellent and abundant color plates, line drawings and descriptions. Each volume is cloth-bound and contains detailed keys to the genera and species treated, notes on the flowering season and the derivation of the names, distribution maps, and a glossary.

The Native Orchids of Florida, Volume I, which normally sells for \$40, is offered in the Cary Gift Shop for \$25. *The Native Orchids of the United States and Canada Excluding Florida, Volume II*, usually priced at \$45, is currently on sale for \$30. The two books can be purchased as a set for \$50.

The Native Orchids of Florida and The Native Orchids of the U.S. and Canada Excluding Florida were published in 1972 and 1975 respectively.

The Arboretum's Gift and Plant Shop is open Tuesday through Friday, 11:00 a.m. to 4:30 p.m., and weekends, 1:30 - 4:30 p.m.

Photographs by Robin Parow-Place

Book Review

by Betsy Calvin

Square Foot Gardening by Mel Bartholomew covers a new and exciting technique of gardening, one in which the garden is built on a 4' by 4' plot. These plots are divided into square foot planting sections, hence the name of the book, and depending on the variety, the vegetables are spaced one or more per square foot. There are numerous charts, illustrations, and photographs to make the planning as uncomplicated as possible. His plans for vertical support structures for climbing vines and shade cages are simple to follow and the materials are easily obtainable. Quite a bit of information on the standard vegetables that he has used is included. However, for anyone planting any of the more exotic varieties, other information sources must be used for facts on starting seeds, transplanting and harvesting schedules. Published by Rodale Press, it is available for loan in the library for Members and for sale at the Gift Shop.

The Double Shell Solar House by Community Builders of Canterbury, New Hampshire, contains numerous designs, for the solar-heated air space between the inner and outer layer makes a warm buffer. Working plans are available from the authors but all of the plans are shown in reduced size in the back of the book. These plans do not include lists of materials. This book is available for loan in the library to members of the Arboretum.

Pruning Simplified by Lewis Hill is a guide to pruning methods and equipment for fruit and nut trees, shrubs, evergreens, hedges, vines and ornamentals. A good feature of the book is inclusion of specific pruning recommendations for the different varieties of apple trees. Unfortunately, the sections on houseplants and bonsai are not as worthwhile. There are numerous clear illustrations and simple explanations throughout the book and a good index. This book is also available on loan at the library and for sale at the Gift Shop.

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